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OCHOA, JUAN CARLOS				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,630

Applicant(s)

PINTO ET AL.

Examiner

JUAN C. OCHOA

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 22-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 22-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 2/14/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The amendment filed 2/14/08 has been received and considered. Claims 1–19 and 22–40 are presented for examination.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/14/08 has been entered.

Information Disclosure Statement

3. The information disclosure statement filed 2/14/08 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; and (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list. The NPL listed in the information disclosure statement has been placed in the application file, but the information referred to by the NPL listed has not been considered. The NPL listed in the information disclosure statement is not a printed publication readily available to the public. Furthermore, the provided numbers correspond to applications which are still pending.

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Claim Interpretation

4. Office personnel are to give claims their "broadest reasonable interpretation" in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541,550-551(CCPA 1969). See *also In re Zletz, 893 F.2d 319,321-22, 13 USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow").... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.

5. Claims recite "concordance scores". The specification defines "concordance scores" as "area under curve":

"Clicking on the comparative model statistics button compares the concordance (area under ROC Curve) for both the sample dataset and the validation dataset as shown in FIGS. 25B and 25C." (see page 37, lines 5-7 and Figs. 25B and 25C).

"The concordance statistic (c) [area under curve] of the validation dataset..." (see page 37, line 9).

6. The claims reciting "concordance scores" were interpreted as "area under curve".

Claim Rejections - 35 USC § 103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1–19, 22–30, and 34–37, are rejected under 35 U.S.C. 103(a) as being unpatentable over by Cabena et al., (Cabena hereinafter), Intelligent Miner for Data Applications Guide (see IDS dated 12/18/06), taken in view of Harrison, (Harrison hereinafter), An Intelligent Business Forecasting System (see IDS dated 12/18/06).

11. As to claim 1, Cabena discloses a machine-based method comprising in connection with a project in which a user generates a predictive model based on historical data about a system being modeled (see chapter 1.5.1, Pages 9-11): selecting

variables having at least a first predetermined level of significance from a pool of potential predictor variables associated with the data, to form a population of predictor variables (see page 101, 2nd and 3rd paragraphs), extending the population of predictor variables to include non-linear interactions of variables (see page 93, 2nd paragraph) and extending the population of predictor variables to include linear and non-linear extensions with remaining previously excluded variables (see "supplementary variables" in "All other discrete and categorical variables and some interesting continuous variables were input as supplementary variables to be profiled with the clusters but not used to define them. These supplementary variables can be used to interpret the cluster as well. The ability to add supplementary variables at the outset of clustering is a very useful feature of Intelligent Miner, which allows the direct interpretation of clusters using other data very quickly and easily" in page 48, 1st paragraph), generating a possible model of the extended population of predictor variables using a subsample of the data by the model generation method (see "Feature Selection" and "Train and Test" in page 95), determining whether the possible model generalizes to the data other than the subsample (see page 101, last paragraph), applying the possible model to all of the data to generate a final model, cross-validating the final model using random portions of the data (see page 97, last paragraph), and interacting with the system being modeled based on the final model (see "To ensure that the model has not overfit the data and to assess the model performance against a data set that has the same characteristics as the application universe, the model should be executed against the test data in test

mode" in page 102, 1st paragraph, lines 1–5 and "After having iteratively improved the models, you chose the best model" in page 102, 3rd paragraph, line 1).

12. While Cabena discloses generating a predictive model based on historical data about a system being modeled, Cabena fails to disclose automatically selecting a model generation method from among a set of available model generation methods to match characteristics of the historical data.

13. Harrison discloses automatically selecting a model generation method from among a set of available model generation methods to match characteristics of the historical data (see page 233, col. 2, next to last paragraph, last 7 lines).

14. Cabena and Harrison are analogous art because they are both related to predictive modelling.

15. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to utilize the automatic model selection of Harrison in the method of Cabena because Harrison explore the possibility of the integration of expert systems technology with a forecasting decision support system (see page 229, col. 1, lines 1–4), and as a result, Harrison reports that testing of his prototype shows that the system is useful for managers who have no forecasting technique and computing background and want to improve their decision making by means of quantitative forecasting (see page 235, col. 2, next to last paragraph).

16. As to claim 2, Cabena discloses a method also including displaying information to the user of the size of the pool of predictor variables (see "Visualizations with only one or two regions" in page 101, 3rd paragraph, line 2).

17. As to claim 3, Cabena discloses a method also including enabling a user to point and click to reduce or extend the size of the pool of predictor variables, retaining only predictor variables having at least a second predetermined level of significance (see "remove the strong variables from the chosen input fields and split the data into multiple files based on the segmentation by the strong variables as indicated by the tree" in page 101, 3rd paragraph, lines 4–7).
18. As to claim 4, Cabena discloses a method in which the user is enabled to invoke an automatic process to select a class of models most suitable to the pool of potential predictor variables associated with the data (see page 118, last paragraph).
19. As to claim 5, Cabena discloses a method in which the user is enabled to point and click to adjust the model selection criterion to retain only the variables having at least a certain level of significance for the target goal (see page 133, 1st paragraph).
20. As to claim 6, Cabena discloses a method in which the user is enabled to point and click to cause display of information about the model performance (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7th paragraph and/or page 101, last paragraph, lines 1–3).
21. As to claim 7, Cabena discloses a method in which the information about the model performance includes at least one of: a statistical report card, a link to a statistical report chart, a lift chart, a link to the lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1st and 2nd paragraphs), a response comparison chart for each decile for each predictor variable in the model, or a link to the response comparison chart.

22. As to claim 8, Cabena discloses a method in which invocation of the link to the statistical report card causes display of the statistics of model performance (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7th paragraph).
23. As to claim 9, Cabena discloses a method in which invocation of the link to the lift chart causes display of a non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1st and 2nd paragraphs).
24. As to claim 10, Cabena discloses a method in which invocation of the link to the response comparison chart causes display of a response chart for each predictor variable in the model for each segment of interest (see "Method 2" in page 119, 3rd paragraph).
25. As to claim 11, Cabena discloses a method in which a user is enabled to choose interactively at least one performance criterion change or transformation or interaction of variables to improve a fit of the model (see "Maximum tree depth" in page 97, 4th paragraph).
26. As to claim 12, Cabena discloses a method also including an enabling a determination whether the model generalizes to the data other than the subsample, and, if so, applying the possible model to all of the data to generate a final model, and cross-validating the final model using random portions of the data (see page 97, last paragraph).

27. As to claim 13, Cabena discloses a method in which the user is enabled to select at least one validation dataset and invoke a model process validation method (see "Value Prediction with RBF" in pages 97 and 98).

28. As to claim 14, Cabena discloses a method in which the user is enabled to point and click to cause display of information about the model process validation (see "Results Visualization" in page 100, 6th paragraph).

29. As to claim 15, Cabena discloses a method in which the information about the model process validation includes at least one of: a statistical report card, a link to a statistical report chart, a cumulative lift chart, a link to the cumulative lift chart and a non-cumulative lift chart, a link to the non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1st and 2nd paragraphs).

30. As to claim 16, Cabena discloses a method in which the user is enabled to select at least one machine automated model development process applied to the entire dataset for a validated model process (see "Network architecture" in page 99, 3rd paragraph).

31. As to claim 17, Cabena discloses a method in which the user is enabled to point and click to cause display of information about the performance of the validated model process applied to the entire set of historical data (see page 101, last paragraph, lines 1–3).

32. As to claim 18, Cabena discloses a method in which the information about the model performance for two independent data subsets, the independent data subsets being randomly selected from the historical data, includes at least one of: a statistical

report card, a link to a statistical report chart, a cumulative lift chart, a link to the cumulative lift chart and a non-cumulative lift chart, a link to the non-cumulative lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1st and 2nd paragraphs).

33. As to claim 19, Cabena discloses a method in which the invocation of the link to the statistical report card causes display of the statistics of model process validation (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7th paragraph and/or page 101, last paragraph, lines 1–3).

34. As to claim 22, Cabena discloses a method in which the final model and the model process validation results are stored persistently (see "Processing settings objects always ... create output data in a database" in page 24, "Processing Functions", 3rd paragraph, lines 1–2).

35. As to claim 23, Cabena discloses a method also including enabling the user to observe the number of predictor variables available for the model (see "remove the strong variables from the chosen input fields and split the data into multiple files based on the segmentation by the strong variables as indicated by the tree" in page 101, 3rd paragraph, lines 4–7).

36. As to claim 24, Cabena discloses a method in which a model method from a library of model methods most suitable to modeling the historical data is automatically selected (see page 11, 1st paragraph).

37. As to claim 25, Cabena discloses a method also including enabling the user to observe the performance of the model by means of links to a plurality of statistical and graphical reports (see "Results Visualization" in pages 100 and 101).

38. As to claim 26, Cabena discloses a method also enabling the user to select a means of validating the model development process (see "Value Prediction with RBF" in pages 97 and 98).

39. As to claim 27, Cabena discloses a method also enabling the user to observe the performance of the model for a training subset and a validation subset of the historical data (see "algorithm outputs a summary screen showing the mean and root mean square error" in page 100, 7th paragraph and/or page 101, last paragraph, lines 1–3).

40. As to claim 28, Cabena discloses a method also enabling the user to invoke at least one validated model development process to produce a final model enabling the use to observe the performance of the final model on at least two independent subsets, the independent subsets being randomly selected from the historical data (see page 101, last paragraph, lines 1–3).

41. As to claim 29, Cabena discloses a method enabling the persisting of the final model and intermediate results to a project database (see "Processing settings objects always ... create output data in a database" in page 24, "Processing Functions", 3rd paragraph, lines 1–2).

42. As to claim 30, Cabena discloses a method enabling the final model to be applied to scoring at least one non-historical dataset wherein the propensity computed by the model is indexed by the score (see page 11, 2nd paragraph).

43. As to claim 34, Cabena discloses a machine-based method comprising receiving from separate sources, sets of potential predictor and dependent variables representing historical data about a system being modeled (see page 92, paragraphs 2–5), and

enabling a user of a model generation tool to combine based on the dependent variables from the sets of potential predictor and dependent variables (see "Okay Customer Set", "Good Customer Set" and "Create Objective Variable" items in page 90, Fig. 46) to generate a model to be used in interacting with the system being modeled (see "To ensure that the model has not overfit the data and to assess the model performance against a data set that has the same characteristics as the application universe, the model should be executed against the test data in test mode" in page 102, 1st paragraph, lines 1–5 and "After having iteratively improved the models, you chose the best model" in page 102, 3rd paragraph, line 1). While Cabena discloses combining based on the dependent variables from the sets of potential predictor and dependent variables, Cabena fails to disclose combining at least two models. Harrison discloses combining at least two models (see page 233, col. 2, next to last paragraph, lines 11–15 and last paragraph).

44. As to claim 35, Cabena discloses a method in which enabling the user to combine the variables includes providing a user interface that enables the user to identify the variables to be combined (see page 21, 1st paragraph).

45. As to claim 36, Cabena discloses a method in which the system being modeled comprises behavior of prospective or current customers with respect to products or services of a company and the method also includes adjusting outcome variables to normalize response rates across products or services with different response rates (see page 90, 2nd line from the bottom to page 91, 2nd line).

46. As to claim 37, Cabena discloses a method in which the system being modeled comprises behavior of current customers with respect to retention of a current service or product of a vendor and the method also includes adjusting variables to normalize response rates across products or services with different response rates, using the computed propensities as indices of the scores (see page 90, 2nd line from the bottom to page 91, 2nd line).

47. Claims 31–33 and 38–40, are rejected under 35 U.S.C. 103(a) as being unpatentable over by Cabena taken in view of Harrison.

48. As to claim 31, Cabena discloses a machine-based method comprising in connection with a project, generating a predictive model based on the historical data (see chapter 1.5.1, Pages 9-11), and displaying to a user a lift chart (see page 101, last paragraph, lines 1–5 and page 105, 1st and 2nd paragraphs), monotonicity (see page 101, last paragraph, last 3 lines and page 119, 2nd bullet from the bottom), and concordance scores (see Chapter 1.5.1, Pages 9-11) associated with each step in a step-wise model fitting process (see page 98, 2nd paragraph). While Cabena discloses generating a predictive model based on historical data about a system being modeled, Cabena fails to disclose automatically selecting a model generation method from among a set of available model generation methods to match characteristics of the historical data. Harrison discloses automatically selecting a model generation method from among a set of available model generation methods to match characteristics of the historical data about a system being modeled (see page 233, col. 2, next to last paragraph, last 7 lines).

49. Cabena does not disclose expressly displaying to a user concordance scores.

Examiner notes that the claims reciting "concordance scores" were interpreted as "area under curve".

50. Official notice is taken that, displaying to a user the area under a curve was well known at the time the invention was made in the analogous art of Chapman et al., (Chapman hereinafter), CRISP-DM 1.0 Step-by-step Data Mining Guide, (see IDS dated 12/18/06). (See "area under a curve" in "Outputs. Derived Attributes. Derived attributes are new attributes that are constructed from one or more existing attributes in the same record. An example might be $\text{area} = \text{length} * \text{width}$ " in page 50, 2nd paragraph and "displaying to a user " in "The outputs produced during the Modeling phase can be combined into one report" in page 66, 1st paragraph, line 1). As a matter of fact, Examiner notes that "displaying to a user the area under a curve" is trivial to any engineer.

51. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to display to a user the area under a curve.

52. The suggestion/motivation to do so would have been to provide an additional visualization option (see "Results Visualization. The output of the clustering algorithms is an output data set and a visualization. The visual results display the number of clusters, the size of each cluster, the distribution of each variable in each cluster, and the importance of each variable to the definition of each cluster" in Cabena page 48, 3rd paragraph).

53. Therefore, it would have been obvious to modify Cabena to obtain the invention as specified in claims.
54. As to claim 32, Cabena discloses a method also including enabling the user to observe changes in the fit of the model as variables associated with the data are added or removed from a predictor set of the variables (see "Maximum tree depth" in page 97, 4th paragraph).
55. As to claim 33, Cabena discloses a method also including enabling the user to terminate the fitting of the model when the fitting process reaches an optimal point (see "Maximum number of passes" in page 98, 2nd paragraph).
56. As to claim 38, Cabena discloses a method also comprising determining a course of action to yield the most positive net present value outcome (see "the most positive NPV outcome" as "increase its profitability" in page 32, 3rd paragraph).
57. As to claim 39, Cabena discloses a method in which the determining includes selection of a mix of channel (see page 30, last paragraph) and product combinations (see "product associations" in page 32, 3rd paragraph).
58. As to claim 40, Cabena discloses a method in which the determining includes predicting retention in combination with response rate to predict net present value (see page 28, 2nd paragraph).

Response to Arguments

59. Applicant's arguments filed 2/14/08 have been fully considered, but they are not persuasive.

60. Regarding the drawing objections, the amendment corrected all deficiencies and the objections are withdrawn.

61. Regarding the claim objections, the amendment corrected all deficiencies and the objections are withdrawn.

62. Regarding the IDS objections, those objections are withdrawn. About the information disclosure statement filed 5/27/05 and its failure to comply with 37 CFR 1.98(a); the Examiner had requested the Applicant to identify any specific references, features, sections or figures in the references cited which are believed to have particular significance in the prosecution of this application or which are considered material to the patentability of the pending claims. Examiner notes that no useful information was provided.

63. Regarding the rejection under 103. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. In the instant rejection, Examiner has elaborated prior art disclosures of amended claims.

64. As to Applicant arguments, (see page 9, 1st paragraph to page 11, 1st paragraph) that Cabena fails to teach "extending the population of predictor variables to include linear and non-linear extensions with remaining previously excluded variables", Examiner has further elaborated such disclosures in the instant rejection as (see "supplementary variables" in "All other discrete and categorical variables and some interesting continuous variables were input as supplementary variables to be profiled with the clusters but not used to define them. These supplementary variables can be used to interpret the cluster as well. The ability to add supplementary variables at the

outset of clustering is a very useful feature of Intelligent Miner, which allows the direct interpretation of clusters using other data very quickly and easily" in page 48, 1st paragraph).

65. As to Applicant arguments, (see page 11) that Cabena fails to teach "concordance scores", which were interpreted as "area under curve" by the Examiner. Official notice has been taken that, displaying to a user the area under a curve was well known at the time the invention was made in the analogous art of Chapman. Additionally, Examiner noted that "displaying to a user the area under a curve" is trivial to any engineer. Furthermore, as noted below, a secondary reference is noted as teaching calculating concordance scores.

66. As to Applicant arguments, (see page 12) that Cabena fails to teach "combining at least two models", Harrison discloses combining at least two models (see page 233, col. 2, next to last paragraph, lines 11–15 and last paragraph).

67. Therefore it is the Examiner's position that the cited references anticipate the independent claims and the rejections are maintained.

Conclusion

68. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

69. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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70. Galperin et al., (Galperin hereinafter), U.S. Patent 6640215 (see IDS dated 2/28/05) teaches calculating concordance scores. (See “measures the integral criterion of lift within a range $[x_1, x_2]$ (say, between 20% and 50%) calculated by the formula ... “ in col. 3, lines 18–28 and col. 4, lines 8–27).

71. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

72. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. C. O./ 4/9/08
Examiner, Art Unit 2123

/Zola E. Cabrera/
Primary Examiner, Art Unit 2123